Genie®
A TEREX BRAND

Parts and Service Supplement

Positive Air Shutdown Valve

Serial Number Range
from Z452513A-47001

Z™-45/25
Z™-45/25J

Part No. 161517
Rev B
May 2013

Introduction

Important

Read, understand and obey the safety rules and operating instructions in the *Genie Z-45/25 and Genie Z-45/25J Operator's Manual* before attempting any maintenance or repair procedure.

This manual provides detailed parts and service information for qualified service professionals.

Basic mechanical, hydraulic and electrical skills are required to perform most procedures. However, several procedures require specialized skills, tools, lifting equipment and a suitable workshop. In these instances, we strongly recommend that maintenance and repair be performed at an authorized Genie dealer service center.

Technical Publications

Genie has endeavored to deliver the highest degree of accuracy possible. However, continuous improvement of our products is a Genie policy. Therefore, product specifications are subject to change without notice.

Readers are encouraged to notify Genie of errors and send in suggestions for improvement. All communications will be carefully considered for future printings of this and all other manuals.

Contact Us:

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This Parts and Service Manual Supplement provides service parts information and electrical schematics for the recently released Positive Air Shutdown System, which are not included in your parts or service manuals. Please add this parts information and electrical schematics to the parts and service manuals for your machine.

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Revision History

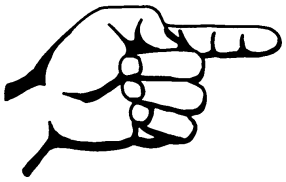
Revision	Date	Section	Procedure / Schematic Page / Description
A	1/2013		New release
B	5/2013	Engine	Pg. 6, Pg. 7
		Chassis	Pg. 8, Pg. 9

REFERENCE EXAMPLES:

Kubota Engine_Section 2_Specifications.
A-6,B-3,C-7_Section 3_Maintenance Procedure.
3-2, 6-4, 9-1_Section 4_Repair Procedure.
Fault Codes_Section 5.
6-35, 6-56, 6-104_Section 6_Schematic Page #.

Electronic Version

Click on any procedure or page number highlighted in blue to view the update.



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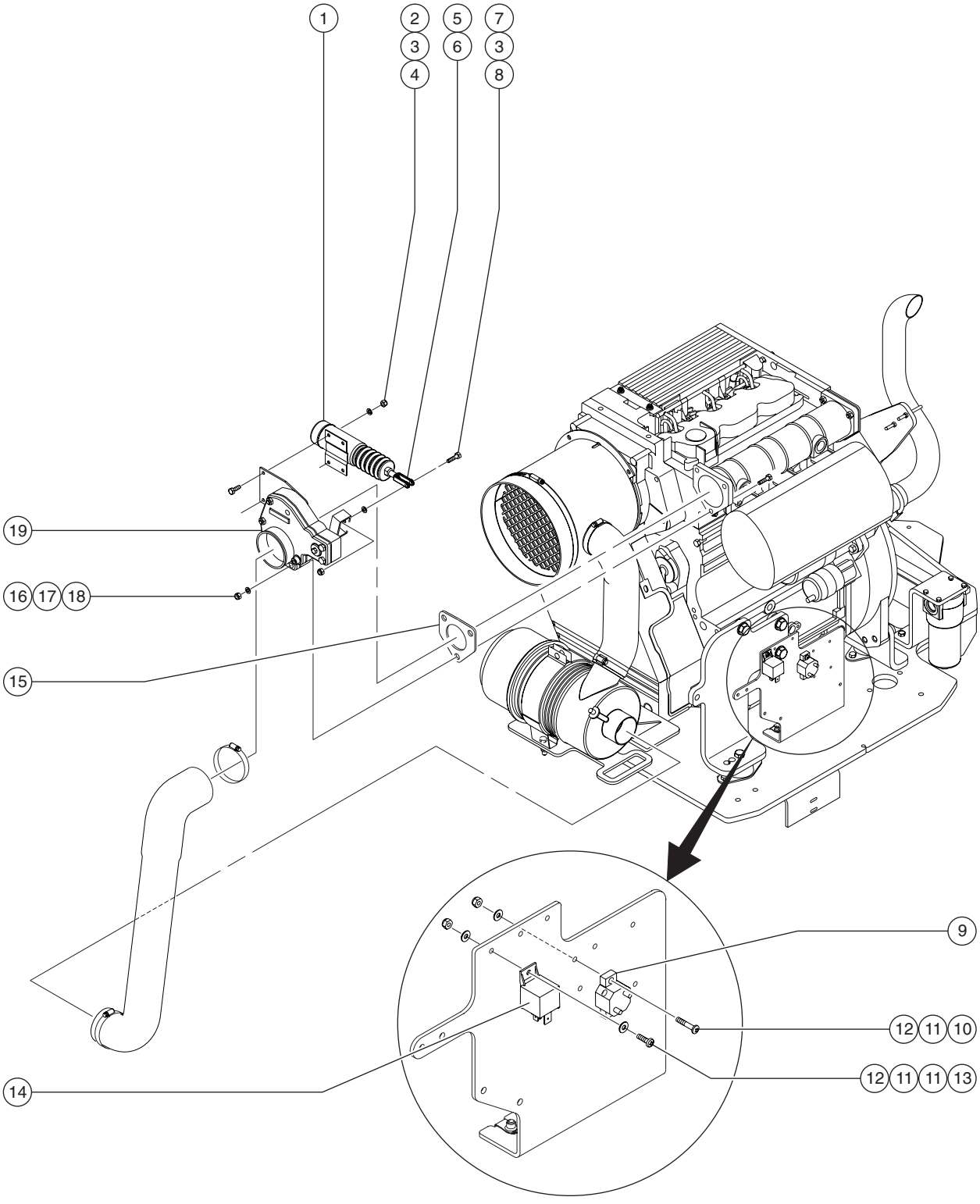
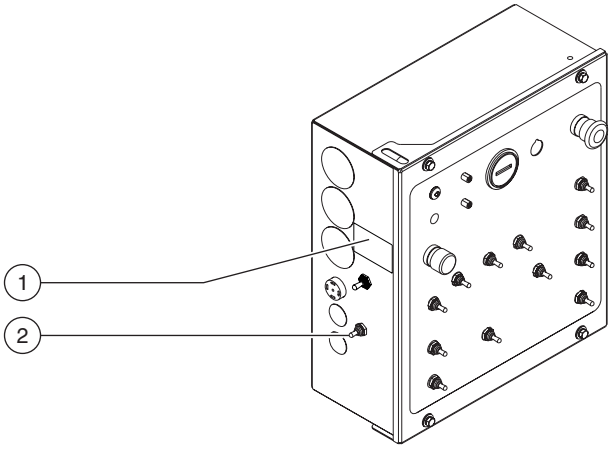
Engine Components



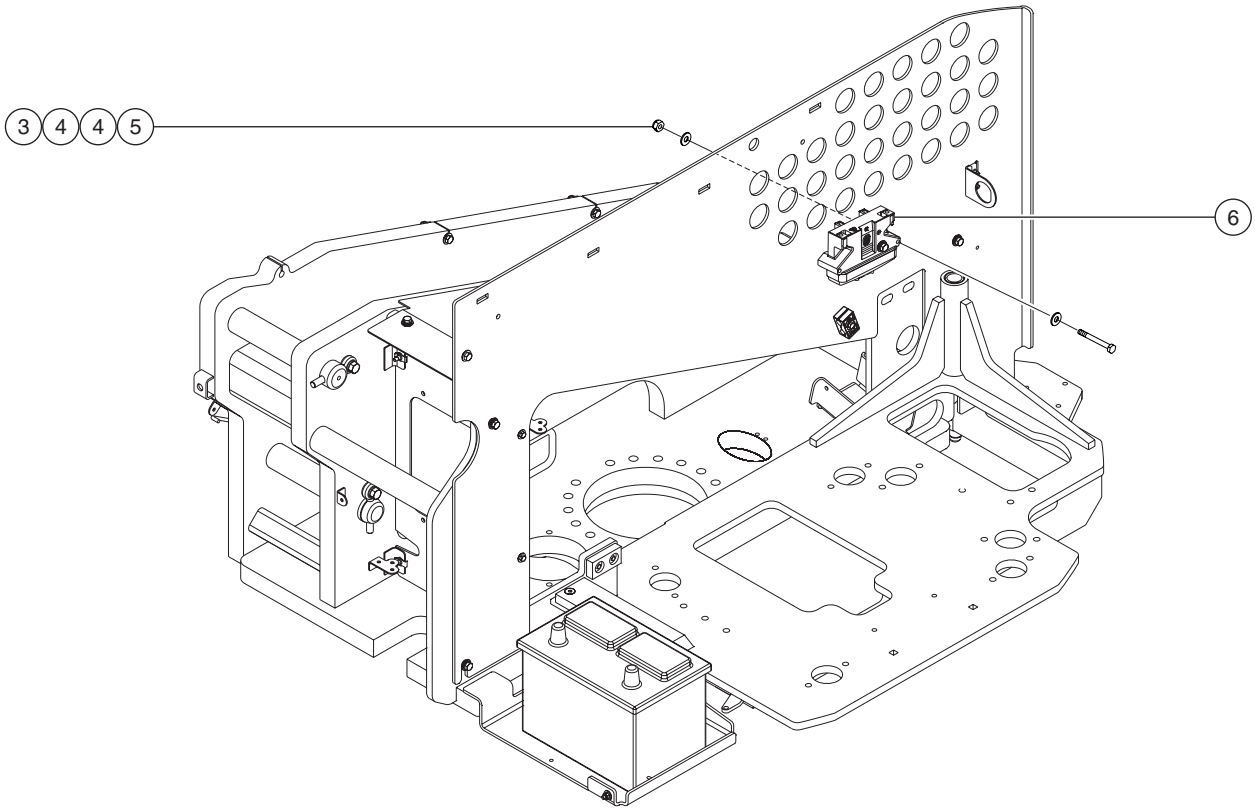
ENGINE COMPONENTS

Item	Part No.	Description	Qty.
1	101957	Solenoid, 12V DC	1
2	6357	Hex Nut, 1/4 -20, GR 2	2
3	6638	Flat Washer, 1/4 inch	2
4	6090	Screw - HHC, 1/4 -20 x 0.75 inch, GR 5	2
5	21130	Clevis Yoke, 1/4 -28	1
6	21496	Nut, 1/4 -28, GR 2	1
7	6888	Screw - HHC, 1/4 -20 x 1 inch, GR 5	1
8	6091	Nylock Nut, 1/4 -20	1
9	61211	Circuit breaker, 15 Amp	1
10	75041	Screw, Phillips, 10-32 x 1	2
11	6146	flat Washer, #10	4
12	6178	Nylock nut, 10-32	3
13	49826	Screw, Phillips, 10-32 x .625	1
14	61225	Relay, 12 VDC, 70 Amp	1
15	128079	Gasket - Deutz Adapter	1
16	25368	Nut, Nylock, M8 x 1.25	3
17	33277	Washer, Flat, M8	3
18	49386	Screw, HHC, M8 x 40	3
19	128065	Valve - Positive Air Shutdown with Deutz Adapter	1

Chassis Components

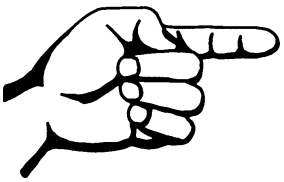


Ground Control Box



CHASSIS COMPONENTS

Item	Part No.	Description	Qty.
—	219681	Wire Harness - Positive Air Shutdown	
1	52607	Decal - Test	1
2	128200	Toggle Switch, SPDT 3 position, momentary (Test) (includes mounting fasteners)	1
—	27246	Toggle Switch Boot	—
—	128578	Screw - PHPH, 6-32 X .025	—
3	6091	Nylock Nut, 1/4 -20	2
4	6638	Flat Washer, 1/4 inch	4
5	6884	Screw - HHC, 1/4 -20 x 2.5 inches, GR 5	2
6	128067	Positive Air Shutdown Controller	1
—	128068	Positive Air Shutdown System Software	
—	110984	Control Module	
—	128069	Control Module Label	



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Scheduled Maintenance Procedures

Observe and Obey:

- ☑ Maintenance inspections shall be completed by a person trained and qualified on the maintenance of this machine.
- ☑ Scheduled maintenance inspections shall be completed daily, quarterly, annually and every 2 years as specified on the *Maintenance Inspection Report.*

⚠WARNING Failure to properly complete each inspection when required may cause death, serious injury or substantial machine damage.

- ☑ Immediately tag and remove from service a damaged or malfunctioning machine.
- ☑ Repair any machine damage or malfunction before operating machine.
- ☑ Keep records on all inspections for three years.
- ☑ Unless otherwise specified, perform each procedure with the machine in the following configuration:
  - Machine parked on a firm, level surface
  - Boom in the stowed position
  - Turntable rotated with the boom between the non-steering wheels
  - Turntable secured with the turntable rotation lock
  - Key switch in the off position with the key removed
  - Wheels chocked
  - All external AC power disconnected from the machine

About This Section

This section contains detailed procedures for each scheduled maintenance inspection.

Each procedure includes a description, safety warnings and step-by-step instructions.

Symbols Legend

Safety alert symbol—used to alert personnel to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠DANGER Red—used to indicate the presence of an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING Orange—used to indicate the presence of a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION Yellow with safety alert symbol—used to indicate the presence of a potentially hazardous situation which, if not avoided, may cause minor or moderate injury.

NOTICE Yellow without safety alert symbol—used to indicate the presence of a potentially hazardous situation which, if not avoided, may result in property damage.

⊙ Indicates that a specific result is expected after performing a series of steps.

⊠ Indicates that an incorrect result has occurred after performing a series of steps.

Maintenance Inspection Report

Model

Serial number

Date

Hour meter

Machine owner

Inspected by (print)

Inspector signature

Inspector title

Inspector company

Instructions

- Make copies of this report to use for each inspection. Store completed forms for three years.
- If any inspection receives an “N”, tag and remove the machine from service, repair and re-inspect it. After repair, place a check in the “R” box.

Legend

Y = yes, acceptable

N = no, remove from service

R = repaired

Comments

Refer to the *Genie Z-45/25 and Z-45/25J* Service Manual for scheduled machine maintenance procedures.
The following scheduled maintenance procedures will need to be performed in addition to regularly scheduled machine maintenance inspections as outlined in the Service Manual.

Checklist A - Rev A	**Y**	**N**	**R**
A-3.1 Lubricate lever shaft			
Perform every 100 hours:			
A-9.1 Lubricate lever shaft			

Maintenance Procedures

A-3.1
Test the Automatic Engine Overspeed Control System

Genie specifications requires that this procedure be performed daily or every 8 hours, whichever comes first.

Regular testing the automatic engine overspeed control system is essential to safe machine operation. Continued use of an improperly lubricated lever shaft could result in a positive air shutdown control system malfunction during an engine overspeed condition. Component damage may result.

Note: Perform this procedure with the machine on a firm, level surface.

1 Pull out the red Emergency Stop Button to the on position at both the ground and platform controls.

2 Turn the key switch to ground control. Start the engine from the ground controls and allow it to idle.

3 Locate the test toggle switch on the side of the ground control box. Move and hold the toggle switch to the TEST position.

4 Activate high idle (rabbit symbol).

⊙ Result: The engine should shut off.

⊠ Result: The engine does not shut off. Consult the Genie Service Department.

5 Wait approximately 5 to 10 seconds for the solenoid valve to reset.

6 Start the engine from the ground controls.

⊙ Result: The engine should start and operate normally.

⊠ Result: The engine does not start. Consult the Genie Service Department.

MAINTENANCE PROCEDURES

A-9.1
Lubricate the Lever Shaft

Genie specifications require that this procedure be performed every 100 hours or monthly, whichever comes first. Perform this procedure more often if dusty conditions exist.

Lubrication to the lever shaft is essential to safe machine operation. Continued use of an improperly lubricated lever shaft could result in a positive air shutdown control system malfunction during an engine overspeed condition. Component damage may result.

1 Locate the lever shaft on the shutdown valve assembly.

2 Apply a liberal coating of grease to the shaft end surfaces on both sides of the valve. Refer to Illustrations 1 and 2.

Grease Specification
Chevron Ultra-duty grease, EP NLGI 2 (lithium based) or equivalent

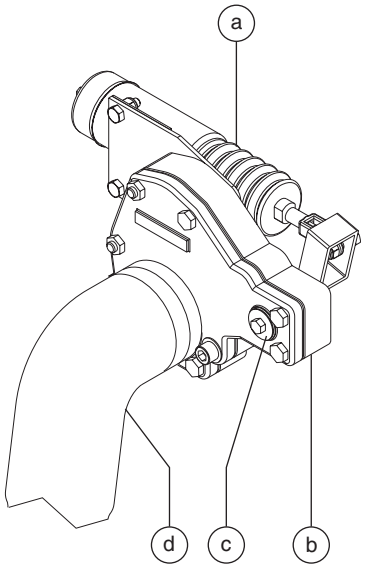


Illustration 1
a solenoid
b shutdown valve assembly
c lever shaft
d air intake tube

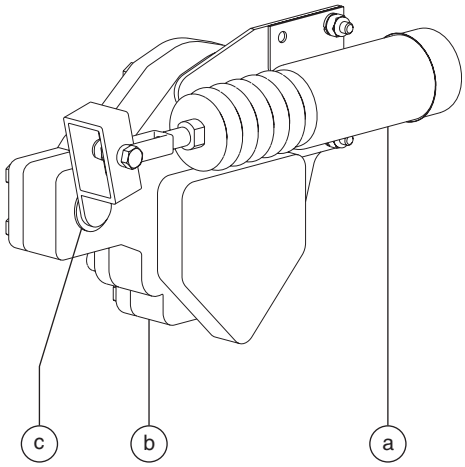


Illustration 2

Schematics

Observe and Obey:

- ☑ Troubleshooting and repair procedures shall be completed by a person trained and qualified on the repair of this machine.
- ☑ Immediately tag and remove from service a damaged or malfunctioning machine.
- ☑ Repair any machine damage or malfunction before operating the machine.

Before Troubleshooting:

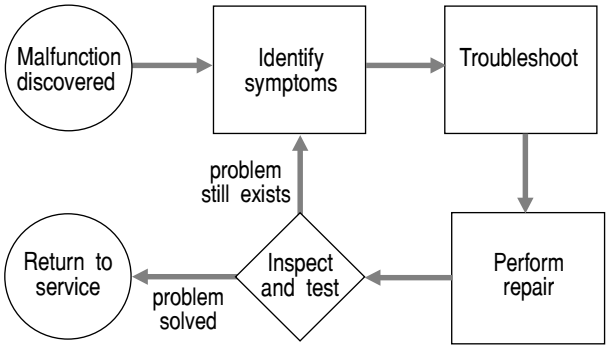
- ☑ Read, understand and obey the safety rules and operating instructions in the appropriate operator's manual on your machine.
- ☑ Be sure that all necessary tools and test equipment are available and ready for use.

About This Section

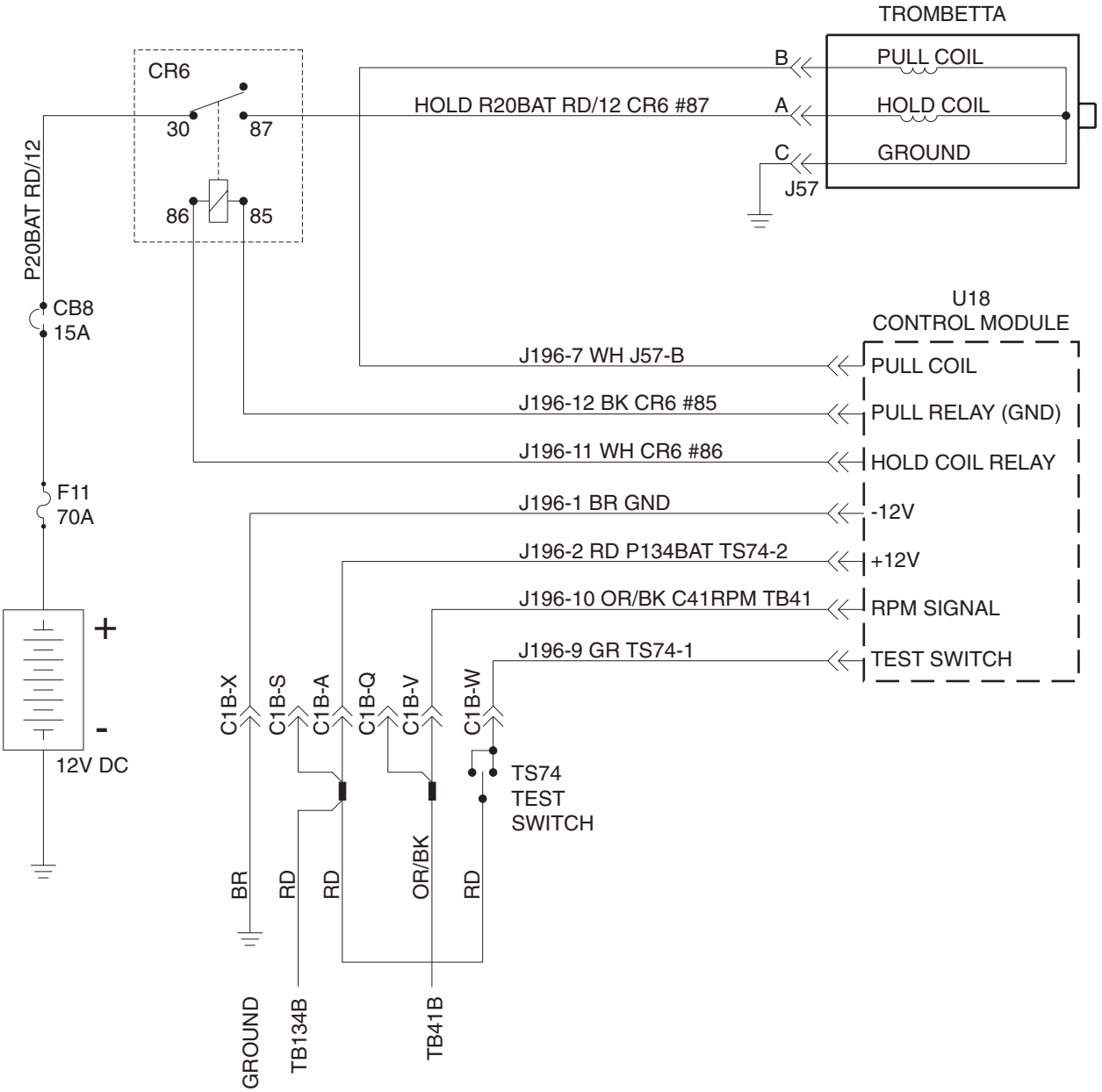
Electrical Schematics

⚠WARNING Electrocution/burn hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

General Repair Process



System Wiring Diagram



Ground Control Box Wiring Diagram